

FORT MONMOUTH -- The man directly responsible for building the Tiros I satellite is a six-foot former Cubmaster who lives in Little Silver.

Herbert I. Butler, who resides at 37 Rosslyn Court, Tiros project manager for the U. S. Army Signal Research and Development Laboratory, spent two years directing construction of the electronic weather observer.

His efforts met success at dawn last Friday ~~morning~~, April 1, when Tiros, with two television cameras looking downward, was lofted into orbit at Cape Canaveral, Fla., and started sending back pictures from around the world.

The aim of the experiment, in which the U. S. Weather Bureau has a high interest, is a better understanding of the weather as the basis for faster and more accurate forecasting. This is a form of research for which the U. S. Army Signal Corps, which is celebrating its Centennial this year, is well qualified, since the Corps founded in 1870 the forecasting service which became the Weather Bureau, and operates its own Meteorological Division at the Signal Laboratory.

Mr. Butler, who was in the control center at the launching site when a three-stage Thor-Able rocket lifted the satellite into outer space, was elated and relieved when data started coming in which showed the 270-pound "bird" was carrying out the job it had been designed to do.

With Tiro's racing around its orbit at a speed of more than 18,000 miles an hour, he feels that he can perhaps relax his velocity for the time being, since "You just don't have much time left over when you are working on a satellite."

Mr. Butler now hopes to spend more time with his family. He and his wife, Kathleen, have two sons, Alan 14, and David 10. They live in a ranch house which Mr. Butler designed and helped build.

Mr. Butler also is hopeful that he will find a few spare moments to indulge an evening and weekend avocation of growing vegetables and flowers, including his prize-winning dahlias.

A Signal Laboratory employe for 19 years, Mr. Butler has the job title of chief of the Astro-Instrumentation Branch of the Astro-Electronics Division, directed by Samuel P. Brown of Atlantic Highlands.

Born in New York, he is the son of Jacob Butler, who still lives there. His mother is deceased. The satellite builder, who helped organize the Little Silver Youth Activities Organization, holds a bachelor of science degree in physics from Monmouth College, obtained after having studied electrical engineering at the Polytechnical Institute of Brooklyn. Meantime, he is studying graduate courses at Newark College of Engineering.

The National Aeronautics and Space Administration, which has overall charge of the Tiro's project, delegated to the Signal Laboratory the task of providing the technical supervision for construction of the satellite by the Astro-Electronic Products Division of the Radio Corporation of America.

At the Evans Area, some 12 miles from here, the Signal Laboratory also is operating one of the two main read-out and control stations where Tiro is directed via radio signals when and where to take weather pictures, and when to telemeter the data to the station. The ground operation is headed by Dudley Cline, 280 New Brunswick Ave., Manasquan, deputy chief of the Astro-Instrumentation Branch. The second main ground station is located ~~in~~^{at} Kaena Point, Hawaii.

The success of Tiro, says Mr. Butler, is due to the joint efforts of government agencies, private firms and many individuals in Monmouth County and widespread parts of the nation.

Besides Mr. Butler, other persons from the Northern Monmouth area connected with the project are Ewart Annett, Oceanport; Lawrence E. Martin, Rumson; Robert Callinan, Rumson; Richard Tustin, Middletown; Randall J. Joyner, an RCA employe, Tinton Falls; Charles Schiffelin, Red Bank and Benjamin Lane, Oceanport. Others live throughout the county.

While working on Tiro, Mr. Butler traveled to California, Boston, Hawaii, Cape Canaveral, Washington and many other points. He and his associates found that one of the critical aspects of designing the satellite was to insure that it would move through its orbit on a precise plane and without wobble, so the cameras could function properly. Another requirement was to build the utmost reliability into all of the parts -- since there are no repairmen in outer space.

These objectives were achieved, but Mr. Butler found^a task that was even more difficult. "The hardest part of a satellite project," he says, "is listening to the countdown."